

Transition from Irrigated to Dryland Farming and Ranching Plan Criteria Practice/Activity Code (134) (No.)

1. Definition

Dryland systems are those which describe production techniques under limited precipitation and usually severe resource concern constraints. The resource constraints include soil erosion by both wind and water; periods of water stress of significant duration; and limited production inputs. A transition from irrigated to dryland farming and ranching conservation activity plan is a conservation system that focuses on crop yield sustainability and water conservation/water harvesting techniques.

A Transition to Dryland conservation activity plan must:

- a. Meet NRCS quality criteria for soil quality, water quality and quantity, and other identified resource concerns;
- b. Comply with federal, state, tribal, and local laws, regulations and permit requirements; and
- c. Satisfy the operator's objectives.

Producers may choose to transition from irrigated to dryland farming and/or ranching for reasons that include, but are not limited to:

- a. Reducing water use;
- b. Protecting threatened or endangered species;
- c. Restoring flow to streams and improving fisheries;
- d. Improving irrigation water management on other land not in dryland system;
- e. Protecting or securing present water rights; and
- f. Continuing farming/ranching in drought conditions or if water rights are reduced or lost.

2. Transition from Irrigated to Dryland Plan Technical Criteria

This section establishes the minimum criteria to be addressed in the development of Transition from Irrigated to Dryland Plans.

A. General Criteria

The "Transition from Irrigated to Dryland Plan" shall be developed by certified Technical Service Providers (TSPs). In accordance with Section 1240 (A), the Environmental Quality Incentive Program (EQIP) program provides funding support through contracts with eligible producers to obtain services of certified TSPs for development of Transition from Irrigated to Dryland Plans. The specific TSP criteria required for Transition from Irrigated to Dryland Plan development is located on the TSP registry (TechReg) web site at: <http://techreg.usda.gov/>

B. Transition from Irrigated to Dryland Plan Specific Element Criteria

The Transition to Dryland Plan shall include, but not be limited to, the following components:

1. Background and Site Information Element

- Name of owner/operator;
- Farm location and mailing address;
- Soil map units;
- Conservation plan map;
- Total acres to be transitioned to dryland;
- Field names or codes;
- Date producer began management of parcel;
- List of crops and/or forages grown on the parcel, with acreage for each crop or forage
- Description of the water right for the property
- Description of the concerns related water quantity, water quality, soil erosion (wind and water) or other local concerns, etc.

2. Current Fertility, Soil Quality and Erosion Control Element • Crop rotation plan;

- List of cover crops and management or other diversified plantings in annual and perennial crops;
- List of nutrients applied (incorporated, foliar, soil inoculants, compost);
- Results of soil tests, tissue tests, microbiological tests, crop quality testing as appropriate for the operation;
- Method and frequency of fertility management monitoring;
- Methods of erosion control and documentation:
 - Soil map units used for erosion prediction and predicted soil erosion from wind and/or water as a result of planned using approved prediction tools such as RUSLE2 and/or WEPS when applicable

3. Factors to Consider in Transition from Irrigated to Dryland Plan -Cropping System Element

- Historic precipitation patterns and rainfall probabilities
- Crop marketability and potential profitability.
- Insect cycles and potential disease organisms.

- Crop water use patterns.
 - Snow management.
 - Weed control options and evaluation of ability to rotate herbicide types.
 - Optimum row widths.
 - Potential phytotoxicity.
 - Equipment needs.
 - Pollinator habitat and pollinator protection.
4. Planned Sustainable Dryland Cropping System. The underlying principles directed at the development of a sustainable dryland cropping system should include four elements:
- a. Rotation intensity • Must plan for a crop succession of sufficient intensity to assure maximum use of effective precipitation.
 - b. Rotation diversity • Promotes greater stability and diminished external input requirements. Diversity minimizes the fluctuation in crop yields, ability to spread out workload and fixed costs, and the reduction in weather and price risks.
 - c. Management. • Using tillage and planting methods that reduce soil disturbance and renew dependence on cultural practices that will reduce reliance on costly technology.
 - d. Transition plan • Length of transition (e.g. one – ten years) for switching from irrigated to dryland for any particular part of the operation
5. Livestock (when applicable to operation)
- Description of livestock and livestock products, processing;
 - Crop production activities if growing livestock feed;
 - Source of water.
 - Drought plan.
 - Prescribed grazing plan without irrigation.

C. Associated Practice Standards

The Transition from Irrigated to Dryland Plan shall address the resource concerns identified and the conservation practices needed to comprise a dryland conservation system. Document the planned conservation practices, the site specific specifications for the practice, the amount to be applied, and schedule of application. Typical NRCS Conservation Practice Standards to be incorporated in a Transition from Irrigated to Dryland Plan may include one or more of the following:

- Conservation Crop Rotation (328)
- Cover Crop (340)
- Contour Farming (330)
- Field Border (386)
- Filter Strip (393)
- Hedgerow Planting (422)
- Mulching (484)
- Nutrient Management (590)
- Pasture and Hayland Planting (512)
- Pest Management (595)
- Prescribed Grazing (528)

- Residue and Tillage Management, Mulch Till (345)
- Residue Management, No Till/Strip Till/Direct Seed (329)
- Residue Management, Ridge Till (346)
- Residue Management, Seasonal (344)
- Stripcropping (585)
- Terrace (600)
- Water Harvesting Catchment (636)
- Windbreak/Shelter Belt Establishment (380)

D. References

- USDA Natural Resource Conservation Service National Agronomy Manual, Part 507.

1. Deliverables for the Client – a hardcopy of the plan that includes:

- Cover page – name, address, phone of client and TSP; Total Acres of the Plan, signature blocks for the TSP, producer, and a signature block for the NRCS acceptance.
- Soils map and appropriate soil descriptions
- Resource assessment results (wind and water erosion, water availability, soil fertility, and others that may be needed)
- For management practices. The planned practices and the site specific specifications on how each practice will be applied; when the practice will be applied, and the extent (acres or number) that will be applied.
- For engineering/structural practices. The planned practice when it will be applied and extent, and located on the conservation plan map.

2. Deliverables for NRCS Field Office:

- Complete Hardcopy and Electronic copy of the client's plan (MsWord copy). **Optional:** If a Conservation Plug-in version is provided to NRCS a Hardcopy of the plan, conservation plan map and soils map is not required.
- Digital Conservation Plan Map with fields, features, and structural practices located.
- Digital Soils Map.